Patricia M. French Senior Attorney



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June 13, 2005

BY OVERNIGHT DELIVERY AND E-FILE

Mary L. Cottrell, Secretary Department of Telecommunications and Energy One South Station Boston, MA 02110

Re: Bay State Gas Company, D.T.E. 05-27

Dear Ms. Cottrell:

Enclosed for filing, on behalf of Bay State Gas Company ("Bay State"), please find Bay State's responses to the following information requests of the Attorney General:

AG-1-29	AG-1-49	AG-1-52	AG-1-96	AG-4-22
AG-5-4	AG-8-2	AG-9-6	AG-10-6	AG-10-16
AG-10-29	AG-10-30	AG-10-33	AG-10-37	
AG-2-49 SU	PP AG-1	10-9 SUPP	AG-10-10 S	UPP

Please do not hesitate to telephone me with any questions whatsoever.

Very truly yours,

Patricia M. French

cc: Caroline O'Brien Bulger, Esq., Hearing Officer (1 copy)
A. John Sullivan, DTE (7 copies)
Andreas Thanos, Ass't Director, Gas Division
Alexander Cochis, Assistant Attorney General (4 copies)
Service List

RESPONSE OF BAY STATE GAS COMPANY TO THE FIRST SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D.T.E. 05-27

Date: June 13, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirement)

AG-1-29 Please itemize all rent revenue and all rent expense items incurred during the test year that were greater than \$10,000.

SUBSTITUTED RESPONSE

Rent revenues earned by Bay State Gas Company ("Bay State") during the test year are as follows:

LNG Tank Lease	\$625,000
Meadow Lane LNG Facility	\$17,331
Water Heater Rental	\$4,859,235
HH Rental	\$1,725,262
Rental Rev – Late Payment	\$239,957
Building Allocations	\$871,002

The following are rents and lease expenses included in the test year operations and maintenance expense (note: vehicle lease expense is noted – but charges are to a clearing account):

\$4,817,413
\$185,481
\$1,172,165
(\$179,654)
\$71,788
\$1,064,299
\$846,260
\$798,868
\$46,257
\$13,835
\$20,000
\$10,200
\$27,908
\$10,240

Bay State Gas Company D.T.E. 05-27 Page 2 of 2

M.B.T.A \$15,370 Vehicle Leases \$2,099,327 Building Rent – New Hampshire \$213,804

RESPONSE OF BAY STATE GAS COMPANY TO THE FIRST SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D.T.E. 05-27

Date: June 13, 2005

Witness Responsible: Steven Barkauskas, Vice President Total Rewards

- AG-1-49 Please provide the following information regarding the Company's pension plan and post retirement benefits other than pensions plan (separately):
 - (1) the amount of expense included in the years 1998 through 2004 operations and maintenance expenses as well as the basis for those amounts:
 - the amount of cash contribution to the trust fund made during each of the last seven years;
 - (3) the 2003 and 2004 year-end amounts of total accumulated pension benefit obligation (vested and non-vested);
 - (4) the 2003 and 2004 year-end amount of total projected benefit obligation (vested and non-vested); and
 - (5) the market value of the 2003 and 2004 year-end trust fund assets

Response:

(1) The gross Pension and PBOP expenses were as follows:

	Pension (\$)	PBOP (\$)
1998	144,000	1,451,000
1999	917,000	993,000
2000	50,000**	1,143,000
2001	(616,000)	1,195,000
2002	847,000**	3,121,000
2003	3,870,000	3,478,000
2004	3,832,000	3,327,000

^{** -} The Pension expense provided in this response tie to gross expense amounts recorded on the Company's general ledger. The Pension expense recorded in Years 2000 and 2002, respectively, include some

adjusting entries that were not included as part of the expense detailed in Table SAB-1on page 48 of my testimony.

(2) The cash contributions made to the trust funds were as follows:

	Pension (\$)	PBOP (\$)
1998	4,145,000	0
1999	0	0
2000	0	0
2001	6,066,000	0
2002	0	2,052,000
2003	0	0
2004	0	0

(3) The accumulated benefit obligation per the Actuarial report is as follows:

	at 9/30/2004 (\$)	at 9/30/2003 (\$)
Non-union Pension	40,613,166	38,730,465
Union Pension	44,403,403	41,648,064
Non-union PEBOP	23,946,585	21,546,872
Union PEBOP	22,589,769	23,132,961

(4) The projected benefit obligation per the Actuarial report is as follows:

	at 9/30/2004 (\$)	at 9/30/2003 (\$)
Non-union Pension	45,334,015	43,888,841
Union Pension	50,065,708	45,921,078
Non-union PEBOP	Note A	Note A
Union PEBOP	Note A	Note A

NOTE A - per the actuarial report - the expected obligation is not used directly in the expense calculation and also not disclosed in the actuarial report.

(5) The market value of the trust fund assets is as follows:

	at 9/30/2004 (\$)	at 9/30/2003 (\$)
Non-union Pension	36,737,814	35,934,517
Union Pension	35,074,613	35,225,408
Non-union PEBOP	1,142,714	408,525
Union PEBOP	14,860,104	14,446,510

RESPONSE OF BAY STATE GAS COMPANY TO THE FIRST SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Witness Responsible: Steven. A. Barkauskas, Vice President

AG-1-52: Please provide a complete and detailed description of the methods that

the Company is using to reduce its health care costs. Please include (but do not limit the description to) (1) the Company's provision of incentives for employees to use the least cost insurer and (2) the Company's efforts to provide incentives for employees to contribute to lower health care

costs.

Response: Please refer to pages 40 and 42 of Exhibit BSG/SAB-1.

RESPONSE OF BAY STATE GAS COMPANY TO THE FIRST SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: John E. Skirtich, Consultant (Revenue Requirements)

AG-1-96: Please itemize and quantify the expenses for outside auditing fees for

each of last five years. Please provide copies of all invoices and bills supporting the costs for outside auditing services. Please provide copies

of all contracts or fee agreements for these services.

Response: Attachment AG-1-96 contains the invoices for auditing services for 2003

and 2004. A listing is included that shows the amounts paid by Bay State Gas Company for the two periods. The data for the other years are not

available.

Bay State Gas Company Respondent: Skirtich D.T.E. 05-27 Attachment AG-1-96

Bay State Gas Company Outside Auditing Fees

<u>Month</u>	<u>2004</u> \$	<u>2003</u> \$
January	53,712	46,547
February	44,747	35,038
March	12,217	0
April	0	0
May	162,149	14,821
June	29,457	32,245
July	34,011	16,388
August	29,798	0
September	30,847	14,922
October	0	16,591
November	60,985	22,520
December	0	0
Total	457,922	199,073

Dollars represent Bay State Gas Company only outside auditing fees.

RESPONSE OF BAY STATE GAS COMPANY TO THE FOURTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Steven A. Barkauskas, Vice President

AG-4-22 If the Company has made any adjustments to its level of pension and/or

PBOP benefits available to retirees in the last 3 years, please describe and quantify the changes. Include in this response any documentation to

retirees referencing these changes.

Response: The Company has not made any changes to the level of benefits that

have been offered to retirees in the past three years.

RESPONSE OF BAY STATE GAS COMPANY TO THE FIFTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Earl M. Robinson, Consultant (Depreciation)

AG-5-4 Please provide copies of all notes taken by Mr. Robinson during all meetings with Company employees regarding the depreciation study that

he prepared in this case.

Response: See Attachment AG-05-04 for the requested information.

RESPONSE OF BAY STATE GAS COMPANY TO THE EIGHTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Earl M. Robinson, Consultant (Depreciation)

AG-8-2 <u>Data</u> - Please provide the length of pipe retired by year from 1980 through 2003 and the corresponding dollars of retirement by year for each type of pipe.

Response: Please see Attachment AG-8-2 for Bay State's length (i.e., number of

feet) and type of pipe retired from 1980 through 2003. The Company notes that its Asset Management System tracks retirements by pipe length and type; however, it accumulates the corresponding cost by year

only.

BAY STATE GAS COMPANY LENGTH OF PIPE RETIRED BY YEAR FROM 1980 - 2004 (Feet)

					<u>Total</u>	Total Retirement
<u>Year</u>	Cast Iron	Welded Steel	Wrought Iron	<u>Plastic</u>	Retired Footage	Cost
1980	16,204	65,815	14,864		96,883	\$129,138.42
1981	21,021	56,576	17,218		94,815	\$145,624.57
1982	21,224	18,094	13,812		53,130	\$165,079.69
1983	13,298	54,655	4,210		72,163	\$115,884.61
1984	13,976	68,639	7,790		90,405	\$155,450.00
1985	16,038	47,551	9,164		72,753	\$140,933.84
1986	6,134	59,137	10,333		75,604	\$136,829.47
1987	11,611	54,046	265		65,922	\$151,158.69
1988	10,273	53,832	1,561	39	65,705	\$155,277.54
1989	18,576	31,195	91	9	49,871	\$214,789.28
1990	15,059	63,646	838	595	80,138	\$169,335.46
1991	16,238	41,757			57,995	\$124,620.66
1992	25,506	47,763		344	73,613	\$328,609.61
1993	72,934	134,755		3,395	211,084	\$768,581.31
1994	550	17,630			18,180	\$98,079.31
1995	76,289	168,643		2,619	247,551	\$1,195,315.16
1996	50,114	62,970		1,707	114,791	\$1,414,907.26
1997	147,717	97,604		12,653	257,974	\$987,605.89
1998	70,526	118,164		1,478	190,168	\$823,146.60
1999	25,099	101,514		4,181	130,794	\$1,447,631.87
2000	37,823	59,397		858	98,078	\$1,782,060.22
2001	28,563	29,108		3,600	61,271	\$1,398,094.66
2002	19,361	53,024		5,678	78,063	\$289,391.84
2003	16,498	66,634		1,414	84,546	\$1,027,727.00

RESPONSE OF BAY STATE GAS COMPANY TO THE NINTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Joseph A. Ferro, Manager Regulatory Policy

AG-9-6 Refer to Exhibit BSG/JAF-1, p. 3-175. Please provide all analysis that supports the use of the weather conditions data specified for each of the Company's divisions.

Response: Attachments AG-9-6(a), (b) and (c) represent graphs for each division that show the strong relationship between EDD and temperature-sensitive volume per customer for each of the categories that the Company weather normalized. Schedule JAF-1-6 provides these actual calendar-month EDD (Sheet 3, column 24) and temperature sensitive volume per customer (Sheet 2, column 21) for the ten heating months.

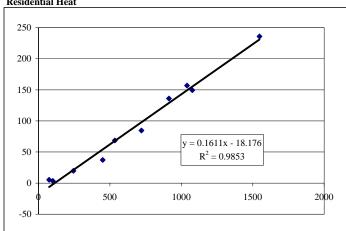
All estimated regressions have a corresponding R square that exceeds 95 percent. This statistic demonstrates that the estimation process selected provides a tool that uses variations in EDD data to explain over 95 percent of the total variation in use per customer. While it might be expected that a formula relating use per customer to weather for a single customer could be estimated so that each actual observation falls exactly on the estimated line - a case of an R square of 100 percent there is no reason to expect the same result when the same tools are applied to a group of customers. For any well-defined homogeneous group of customers there will always be some element of heterogeneity across customers in usage due to scale differences, habit differences, and billing differences. This heterogeneity will naturally produce some variation around any regression line estimated for any one customer causing some reduction in R square below 100 percent. In the case of the set of regressions reported, this reduction in R square is very small - the difference between an R square of .955 and .975, for example, is not statistically significant.

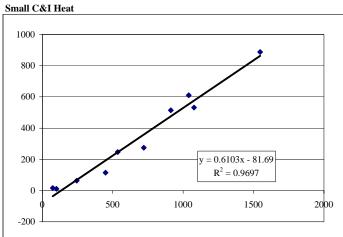
Relationship between Temperature Sensitive Volume per Customer and EDDs Brockton

Y-axis Temperature Sensitive Volume per Customer

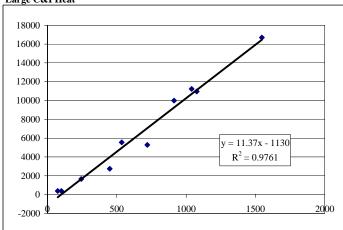
EDD X-axis Monthly Data for 2004

Residential Heat







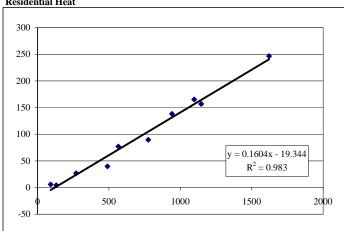


Relationship between Temperature Sensitive Volume per Customer and EDDs Lawrence

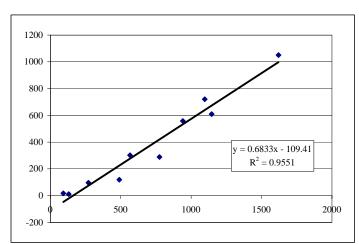
Y-axis Temperature Sensitive Volume per Customer

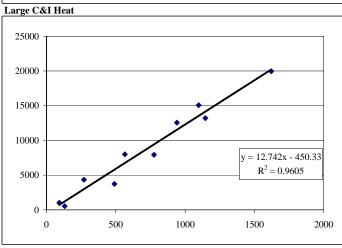
EDD X-axis Monthly Data for 2004

Residential Heat



Small C&I Heat



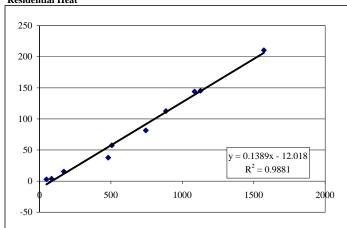


Relationship between Temperature Sensitive Volume per Customer and EDDs Springfield $\,$

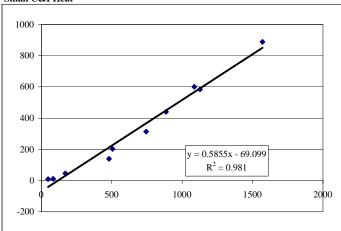
Y-axis Temperature Sensitive Volume per Customer

X-axis EDD Monthly Data for 2004

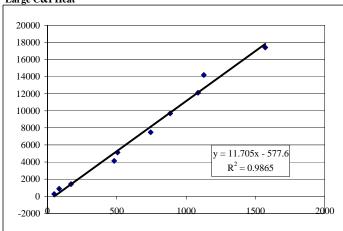
Residential Heat



Small C&I Heat







RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (ROE)

AG-10-6 Referring to Exhibit BSG/PRM-1, page 41, lines 3 and 4, please provide a

complete copy of the December 1, 2004 *Blue Chip* publication referred to in that statement. Please also provide a complete copy of the June 1,

2005 update to the publication when it becomes available.

Response: See Attachment AG-10-6 (a) for copy of the December 1, 2004 Blue Chip

publication.

See Attachment AG-10-6 (b) for a copy of the June 1, 2005 Blue Chip

publication.

RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (ROE)

AG-10-16 Referring to Exhibit BSG/PRM-2, Schedule PRM-3, please provide an

update to the Capitalization and Financial Statistics shown on that page

for the period 2000 to 2004 for the gas group.

Response: Please refer to Attachment AG-10-16.

<u>Gas Group</u> Capitalization and Financial Statistics (1) <u>2000-2004, Inclusive</u>

	2004	2003	2002 (Millions of Dollars)	2001	2000	
Amount of Capital Employed	0.4.540.7	¢ 4 474 0	C4 404 4	# 4 400 0	Ф 000 F	
Permanent Capital Short-Term Debt	\$1,516.7	\$1,171.8	\$1,124.1	\$1,106.9	\$ 938.5	
Total Capital	\$ 178.2 \$1,694.9	\$ 265.3 \$1,437.1	\$ 150.5 \$1,274.6	\$ 141.5 \$1,248.4	\$ 113.3 \$1,051.8	
Total Capital	\$ 1,094.9	\$ 1,437.1	\$1,274.0	Φ 1,240.4	\$ 1,051.6	
Market-Based Financial Ratios						Average
Price-Earnings Multiple	15 x	13 x	17 x	15 x	15 x	15 x
Market/Book Ratio	202.3%	194.0%	179.5%	190.8%	185.5%	190.4%
Dividend Yield	3.8%	4.3%	4.8%	4.6%	4.9%	4.5%
Dividend Payout Ratio	56.6%	57.8%	83.6%	67.1%	71.0%	67.2%
Capital Structure Ratios						
Based on Permanent Capital:						
Long-Term Debt	46.2%	45.5%	51.8%	52.3%	49.1%	49.0%
Preferred Stock	0.7%	0.4%	0.4%	0.4%	0.5%	0.5%
Common Equity	53.2%	54.1%	47.7%	47.2%	50.3%	50.5%
• •	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Based on Total Capital:						
Total Debt incl. Short Term	52.5%	56.0%	57.3%	57.6%	54.8%	55.6%
Preferred Stock	0.6%	0.4%	0.4%	0.4%	0.5%	0.4%
Common Equity	46.9%	43.7%	42.3%	41.9%	44.7%	43.9%
1.3	100.0%	100.0%	100.0%	100.0%	100.0%	99.9%
Rate of Return on Book Common Equity	13.4%	14.5%	11.9%	13.1%	12.7%	13.1%
Operating Ratio (2)	87.8%	86.1%	85.7%	88.3%	84.9%	86.6%
Coverage incl. AFUDC (3)						
Pre-tax: All Interest Charges	5.21 x	5.04 x	3.75 x	3.63 x	3.70 x	4.27 x
Post-tax: All Interest Charges	3.57 x	3.46 x	2.67 x	2.61 x	2.69 x	3.00 x
Overall Coverage: All Int. & Pfd. Div.	3.55 x	3.44 x	2.66 x	2.55 x	2.62 x	2.96 x
Coverage excl. AFUDC (3)						
Pre-tax: All Interest Charges	5.19 x	5.03 x	3.73 x	3.58 x	3.67 x	4.24 x
Post-tax: All Interest Charges	3.55 x	3.44 x	2.65 x	2.57 x	2.66 x	2.98 x
Overall Coverage: All Int. & Pfd. Div.	3.54 x	3.43 x	2.64 x	2.51 x	2.59 x	2.94 x
Quality of Earnings & Cash Flow						
AFC/Income Avail. for Common Equity	0.7%	0.7%	1.2%	2.4%	1.7%	1.3%
Effective Income Tax Rate	38.9%	39.2%	39.8%	38.5%	37.7%	38.8%
Internal Cash Generation/Construction (4)	102.0%	136.5%	78.2%	82.5%	84.8%	96.8%
Gross Cash Flow/ Avg. Total Debt(5)	21.6%	23.1%	17.4%	18.7%	21.6%	20.5%
Gross Cash Flow Interest Coverage(6)	5.58 x	5.81 x	4.10 x	3.79 x	4.29 x	4.72 x
Common Dividend Coverage (7)	3.47 x	3.75 x	3.05 x	2.89 x	3.00 x	3.23 x

See Page 2 for Notes.

RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (ROE)

AG-10-29 Referring to Exhibit BSG/PRM-2, Schedule PRM-10, pages 1 to 5, please

provide copies of the source documents used for the update to the

Interest Rates.

Response: A copy of the source document supporting the update of the interest rates

(see response to Information Request AG-10-29) is attached as

Attachment AG-10-29.

RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (ROE)

AG-10-30 Referring to Exhibit BSG/PRM-2, Schedule PRM-11, please provide a

complete copy of the source documents for the information on that page.

Response: A copy of the pages that were used to support the returns shown on

Schedule PRM-11 is attached as Attachment AG-10-30.

BULK ATTACHMENT

RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (COS)

AG-10-33 Referring to Exhibit BSG/PRM-2, Schedule PRM-12, page 4, please

provide a complete copy of the February 1, 2005 Blue Chip Financial Forecasts publication and complete copies of all updates to that

publication.

Response: See Attachment AG-10-33 for the February 1, 2005 Blue Chip Financial

Forecasts publication. The updated Blue Chip is provided in Attachment

AG-10-6.

RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (ROE)

AG-10-37 Referring to Exhibit BSG/PRM-1, Appendix G, page 4, please provide all

academic support for Mr. Moul's proposition that "the correct measure of the equity risk premium is the arithmetic mean because a utility must expect to earn its cost of capital in each year in order to provide investors with their long-term expectations," whereas, in "pension determinations, compound rates of return, as shown by the geometric means, my be

appropriate."

Response: Please see Attachment AG-10-37 for the excerpt from Ibbotson

Associates 2002 Yearbook.

RESPONSE OF BAY STATE GAS COMPANY TO THE SECOND SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Stephen H. Bryant, President

SUPPLEMENTAL RESPONSE

AG-2-49 Provide copies of all the prefiled testimony, exhibits, responses to discovery and hearing transcripts concerning the Company's

depreciation witness from the Company's rate case, D.T.E. 92-11

(1992).

Response: This material, which is available to the Attorney General as it is in the

public domain, is still being gathered and prepared for exhibit format. Bay State will supplement this response when the material has been

compiled.

SUPPLEMENTAL RESPONSE:

The following is a list of attachments regarding the requested information:

Attachment AG-2-49 (a) – DPU 92-111 Exh. BSG-6 – E.M. Robinson Testimony

Attachment AG-2-49 (b) – DPU 92-111 Schedule BSG-6-1 – Depreciation Study

Attachment AG-2-49 (c) – DPU 92-111 BSG Responses To Information Requests AG-12-4, AG-12-5, AG-12-6, AG-12-7, AG-12-8, AG-12-9, AG-12-10, AG-12-11

Attachment AG-2-49 (d) - DPU 92-111 Transcript Vol. 10

Attachment AG-2-49 (e) – DPU 92-111 BSG Responses To Record Requests AG-RR-66, AG-RR-67, AG-RR-68

BULK ATTACHMENTS

RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (ROE)

SUPPLEMENTAL RESPONSE

AG-10-9 Referring to Exhibit BSG/PRM-1, page 48, lines 8 to 9, please provide the workpapers,

calculations, formulas, assumptions, and supporting documentation for the determination of

the 0.91 percent gas group size premium.

Response: The average market capitalization (at fiscal year end 2003) of the Gas Group is shown

below.

	AGL	New Jersey	Piedmont	South Jersey	WGL	
	Resources	Resources	Natural Gas	Industries	<u>Holdings</u>	Average
Fiscal Year	12/31/03	09/30/03	10/31/03	12/31/03	12/31/03	
Common Stock						
Issued	64,500.000	27,725.394	33,655.000	13,229.001	48,650.635	
Treasury	0.000	492.322	0.000	0.000	39.072	
Outstanding	64,500.000	27,233.072	33,655.000	13,229.001	48,611.563	
Year-End Price	\$29.10	\$36.04	\$39.73	\$40.50	\$27.58	
Market Capitalization of equity	\$ 1,876,950	\$ 981,480	\$ 1,337,113	\$ 535,775	\$1,340,707	\$ 1,214,405

With the market capitalization shown above, the 0.91% size premium was determined from the Ibbotson Associates, <u>SBBI Yearbook</u>. A copy of the chapter from <u>SBBI</u> dealing with the size premium is attached.

SUPPLEMENTAL RESPONSE:

See Attachment AG-10-9 for a copy of the Ibbotson Associates, <u>SBBI Yearbook</u>. The attachment was erroneously excluded from the Company's June 1, 2005 response.

RESPONSE OF BAY STATE GAS COMPANY TO THE TENTH SET OF INFORMATION REQUESTS FROM THE ATTORNEY GENERAL D. T. E. 05-27

Date: June 13, 2005

Responsible: Paul R. Moul, Consultant (ROE)

SUPPLEMENTAL RESPONSE

AG-10-10 Referring to Exhibit BSG/PRM-1, page 53, line 13 to 15, please complete

copies of the reports and analyses from Standard & Poors that state that

"interest coverage provided by funds from operations is presently

emphasized by S&P in its quantitative analysis."

Response: Please refer to the document attached as Attachment AG-10-10.

SUPPLEMENTAL RESPONSE:

Attachment AG-10-10 was erroneously excluded from the Company's June 1, 2005 response, and is included herein.